



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/672,240	09/25/2003	Hiromichi Tanimukai	5854-29 (MTM-68-US)	8719

20575 7590 11/06/2006

MARGER JOHNSON & MCCOLLOM, P.C.  
210 SW MORRISON STREET, SUITE 400  
PORTLAND, OR 97204

EXAMINER

PSITOS, ARISTOTELIS M

ART UNIT PAPER NUMBER

2627

DATE MAILED: 11/06/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/672,240	<b>Applicant(s)</b> TANIMUKAI, HIROMICHI	
	<b>Examiner</b> Aristotelis M. Psitos	<b>Art Unit</b> 2627	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 01 September 2006.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,2,6,7 and 9-11 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2,6,7,9-11 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

Applicant's response of 9/1/06 has been considered with the following results.

#### ***Specification***

The amendment to the title has been entered. Applicant's cooperation is greatly appreciated.

#### ***Claim Objections***

Claims 6 and 7 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. As presented, these claims recite a conclusion/wherein clause, but the examiner fails to see what further limit the judgment means in claim 1 (see below problem with respect to claim 1).

#### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

1. Claims 1,2,6,7,9-11 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter, which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

A) In particular, as disclosed with respect to the systems operation, at steps 205 and 208 (in figure 4), an evaluation/judgment is made. These events are predicated upon a predetermined number. However, no value, or range of values for such a "predetermined number" is found, nor can the examiner readily ascertain as to how such a predetermined number can be deduced from the disclosure. All independent claims 1, 9 and 10 require such and hence fall accordingly.

B) The claims now recite a "regular cause" and a "sudden cause", as defined/recited in the independent claims.

Art Unit: 2627

Since these cannot be readily ascertained from the disclosure, especially with respect to the regular cause, i.e., a host performs a plethora of events/causes, and no event, cause is defined.

The dependent claims, 2,6,7, and 11 do not clarify the above and fall accordingly.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

2. Claims 1,2,6,7,9-11 are rejected under 35 U.S.C. 112, second paragraph, as failing to set forth the subject matter which applicant(s) regard as their invention.

Independent claims 1,9,10 now recite both a "regular cause" and a "sudden cause". These causes are defined in the independent claims. Nevertheless, what a "regular" cause – caused by the performance of the host is not clear, especially because a "host" can perform, cause a plethora of events/causes. The claims fail to clearly define the scope of the invention.

Dependent claims 2,6,7, and 11 fall with their respective parent claim.

Independent claim 1, recites in line 16 "by the judgment means"; however, no such means is previously recited, hence this phrase is not understood/clear.

Claim 6 further refers to the judgment means, with respect to claim 1 and falls accordingly.

Dependent claim 7 falls accordingly.

As far as the claims recite positive limitations, the following rejections are made.

***Claim Rejections - 35 USC § 103***

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Art Unit: 2627

3. Claims 1,2, 9,10 and 11 are rejected under 35 U.S.C. 102(e) as being anticipated by Yamamoto ('910) further considered with the acknowledged prior art and all further considered with either Yamamoto ('515) or Brunet et al ('873).

The following analysis is made:

Claim 1

Yamamoto

An optical disc drive

see abstract/title

capable of recording data received

from a host onto

a recordable optical disc at a recording

speed of any one of multiple recording

speed levels,

the data being recorded onto the optical disc with

met by the acknowledged prior

a predetermined format in the form of a predetermined

art

number of blocks,

the optical disc drive comprising:

storage means for temporarily storing

buffer memory - 9

the data received from the host;

consecutively recording means

present – see operation, resumption

which temporarily interrupts recording of

after interrupt/buffer underrun -

the data onto the optical disc in the case

where the data transfer from the host

cannot keep up with the recording process

and the data stored in the storage

means falls below a predetermined amount,

Art Unit: 2627

and then consecutively records the remaining data from the end of the recorded data in a substantially successive manner when the storage means is filled with data transferred from the host; wherein such temporary recording interruption occurs due to a regular cause which is substantially caused by the performance of the host or a sudden cause, the sudden cause including a cause including a cause occurring when other application software is started in the host during data transfer by the host;

see discussion with respect to the acknowledged prior art, i.e., buffer under run

counting means for counting the number of recording interruptions performed by the consecutively recording means due to the regular cause judged by the judgment means; and

see description of element 17, fig. 4 in Yamamoto and the secondary references to either Yamamoto/ Brunet et al

recording-speed adjustment means for adjusting the recording speed for the optical disc in the case where the count number by the counting means is greater than a predetermined value.

see speed control ability, elements 18, 3,2,1

Art Unit: 2627

In the above analysis, the Yamamoto reference discloses an optical rec/repr. system wherein during appropriate interruptions (buffer-under run) a evaluation is made with respect to a predetermined value. Appropriate speed control is performed subsequent thereto in accordance with this evaluation.

With respect to the "regular cause" as being the critical value as now recited, as far as the examiner can interpret such a phrase, either

- a) Yamamoto ('515), discusses in the routine recording of information the ability to detect/count the block – see the discussion with respect to the repeat counter starting at col. 7 line 4; or alternatively,
- b) Brunet et al ('873), discuss block size and determination of such – see the abstract, discussion of figures 3 and 5, as well as the disclosure starting at col. 7 line 60.

It would have been obvious to modify the base system & the acknowledged prior art – with respect to the block encoding format(s) for the data with the teaching from either

Yamamoto or Brunet et al so as to determine the occurrence of the regular cause/event for the reasons discussed in the secondary references.

Method claim 10 is met when the above apparatus operates.

With respect to independent claim 9, since it is written in alternatives and the above combination provides for the regular cause, such is met.

The limitations of claims 2 and 11 are present in the base reference.

***Claim Rejections - 35 USC § 103***

4. Claims 6,7 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over the art as applied to claims 1 and 2 as stated above, and further in view of Hanamoto et al and further considered with Mandal ('024).

With respect to these limitations, although there is a system controller 17 in the base reference, there is no clear depiction of a sudden cause.

Hanamoto et al discloses in this environment the ability of deciding whether a "shock" has occurred to generate the interruption.

Mandal further teaches in this environment, the ability of keeping track of various events.

Art Unit: 2627

It would have been obvious to modify the base systems as relied upon above with respect to the independent claim and modify such with the above teaching from Hanamoto et al, & Mandal motivation is to provide for a decision predicated upon a "shock" (interpreted as the claimed sudden cause) so as to include additional evaluation criteria.

5. Claims 1 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tseng et al or Chu further considered with either Yamamoto ('515) or Brunet et al ('873).

Tseng et al discloses a method and apparatus for controlling the speed of recording in an optical rec/repro system predicated upon an evaluation of the number of interruptions vs. a predetermined #, time – see the discussion with respect to fig. 3. The appropriate steps of claim 10 are present.

The overall system uses an appropriate buffer – see col. 2 lines 62 plus.

Chu discloses a "write speed control" ability – see the title and abstract, wherein if the # of buffer underruns exceeds a certain value appropriate slow down occurs.

The examiner interprets the "empty" as indicative of buffer underruns, which in turn is analogous to the claimed "interruptions".

a) Yamamoto ('515), discusses in the routine recording of information the ability to detect/count the block – see the discussion with respect to the repeat counter starting at col. 7 line 4; or alternatively,

b) Brunet et al ('873), discuss block size and determination of such – see the abstract, discussion of figures 3 and 5, as well as the disclosure starting at col. 7 line 60.

It would have been obvious to modify either Tseng et al or Chu– with respect to the block encoding format(s) for the data with the teaching from either

Yamamoto or Brunet et al so as to determine the occurrence of the regular cause/event for the reasons discussed in the secondary references.



Art Unit: 2627

6. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over the art as applied to claims 1 and 10 as stated in paragraph 5 above, and further in view of Liang et al

With respect to claim 11, although the system to Tseng et al permits a decreasing of the write speed, there is no clear depiction that such is at the claimed 1 level lower or more levels lower.

Liang et al discloses in this environment the ability of reducing the systems speed by 1x –see the discussion with respect to figure 2, especially fig. 2c the noted “1x”. Such a control is predicated upon an error occurrence

It would have been obvious to modify the base references as relied upon in paragraph 5 above with the above teaching from Liang et al and provide for the lower of the speed by 1x and to reduce even further is considered a logical extension of lowering the speed.

7. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over the art as applied to claims 1 and 10 as stated in paragraph 5 above, and further in view of Hanamoto et al further considered with Mandal..

Claim 9 as interpreted herein requires BOTH A “regular” and “sudden” cause criteria.

In the above reference to either Tseng et al/or Chu, the regular cause is interpreted as the system operates.

Hanamoto et al teaches in this environment, the ability to detect a “shock” and provide for appropriate interruption and resumption of system operation.

Mandal further teaches in this environment, the ability of keeping track of various events.

It would have been obvious to modify the base systems as relied upon above in paragraph 5 and modify such with the above teaching from Hanamoto et al, & Mandal motivation is to provide for a decision predicated upon a “shock” (interpreted as the claimed sudden cause) so as to include additional evaluation criteria.

***Conclusion***

3. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Aristotelis M. Psitos whose telephone number is (571) 272-7594. The examiner can normally be reached on M-F: 6:00 - 2:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dwayne D. Bost can be reached on (571) 272-7023. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Art Unit: 2627

Aristotelis M Psitos  
Primary Examiner  
Art Unit 2627

A handwritten signature in black ink, consisting of a stylized 'A' followed by a series of loops and a long horizontal stroke extending to the right.

AMP